Translation of page 15 of WO 99/01825 A1 from French to English

CLAIMS

1. Method of construction of a neural network intended for the modelling of a phenomenon, the network comprising entries intended to receive signals representative of values of variables, neurons intended to apply a function of activation to the signals which they receive, at least one exit intended to transmit data of a result of the model of the phenomenon, and connections formed between the entries and the neurons and between the neurons and the exit,

of the type which comprises:

in a first stage, determination of the variables which must be used in models of the phenomenon by determination of descriptors each representative of values of a variable,

in a second stage, the selection of the variables to be incorporated in at least one optimal model of the phenomenon by evaluation of the results of several models, and

in a third stage, the construction of a neural network by determination of the connections of the neurons according to an optimal model obtained,

characterized in that the method comprises

- during or before the first stage of determination of the descriptors, the introduction of at least one additional variable which has random values, and the determination of a descriptor representative of values of this additional variable,

- the classification of the descriptors, including that of the additional variable, by application of a comparison criterion of the results given by the models to the data representative of the result of the phenomenon, with determination of an order of decreasing significance of the descriptors, then

- the elimination of at least one descriptor which, in the order of decreasing significance of the descriptors, is classified according to the descriptor representative of the values of the additional variable.